

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,586	02/05/2002	Kenneth E. Lee	1082-008	8283

7590 02/25/2004

Joseph A. Walkowski
Traskbitt, PC
P. O. Box 2550
Salt Lake City,, UT 84110

EXAMINER

MILLER, EDWARD A

ART UNIT	PAPER NUMBER
----------	--------------

3641

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/068,586

Applicant(s)

LEE, KENNETH E.

Examiner

Edward A. Miller

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-33 and 59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25-33 is/are allowed.
- 6) ☒ Claim(s) 59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/25/03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 3641

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on November 25, 2003 has been entered.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bazaki in view of Strauss et al. '868, Lund et al. '714, Lee et al., and Brothers.

Bazaki, at col. 3, lines 50-59, teach that CL-20 may partially replace RDX in prior plastic bonded explosives, PBX, which comprise the explosive and a polymer binder. Strauss et al. '868 teaches a combination of layers as high energy propellants, wherein one layer comprises RDX and the alternate layer comprises CL-20. Binders and plasticizers are taught, including BDNPA/F, for example at col. 3, lines 19-43. Lund et al. '714 also teach layered compositions for use as explosives, where the explosives may comprise CL-20 in an inert or energetic polymeric system, at col. 4, lines 20-25, or alternately, C-4 at col. 4, lines 35-37. It would have been obvious to use a thin layer of the notoriously well known C-4 (PBX) explosive which is essentially RDX with about 10% binder ingredients, having a thickness that is thinner than the minimum detonation thickness, as the slow burn RDX layers, along with the preferred CL-20 fast burn layers. Such would comprise these claims as broadly claimed, including with a "comprising" claim scope. Further, it would have been obvious to use a mixture of types of explosive particles, RDX plus CL-20, to obtain the desired properties, as is also notoriously well known and taught in Bazaki, above. This is further shown in Lee et al. for a teaching of a CL-20 composition, e.g., in the Abstract. Brothers at col. 3, lines 40-43

Art Unit: 3641

is cited only to teach the precise formulation of the notoriously well known C-4 explosive. Variation of notoriously well known ingredients and amounts would have been obvious to one of ordinary skill in the art. It is well settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), *In re Aller*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955). Further, where the ingredients are well known and combined for their known properties, the combination is obvious, absent unexpected results, *In re Crockett*, 126 USPQ 186, *In re Pinten*, 173 USPQ 801, and *In re Sussman*, 43 CD 518. Also, it is prima facie obvious to combine two compositions, (Here C-4 and the Lee et al. CL-20 composition, e.g., each taught for the same purpose, to yield a third composition for that very purpose. *In re Kerkhoven*, 205 USPQ 1069, and *In re Susi*, 169 USPQ 423. The respective properties of CL-20 and RDX (C-4) compositions are well known and shown generally in the references, such as by the taught burning speed, density, etc.

Note that there is nothing in the claims to preclude, or to require, a layered composition. The instant composition claims are only limited as to the composition, not the arrangement thereof. The broad “comprising” claim scope cannot be relied upon to limit any such physical details. The allegation of no teaching of polyisobutylene is not well taken, as C-4 has such a polymer binder and is a prototypical PBX, going back to Viet Nam times and before, as is notoriously well known and taught in Brothers as set forth above. In fact, this examiner, who served in the Army in Viet Nam in 1969, personally used C-4 explosive as a usual and normal explosive, both as part of Claymore mines and for detonations purposes in the form of 2 pound, about 1 inch thick, brick shaped packages. It is not well taken to challenge what is notoriously well known. The motivation to combine is found in the references, for the expected improvement in properties from substituting some CL-20 for the prior explosive ingredient either mixed together or combined in layers, and in the case law that

Art Unit: 3641

reflects sound engineering and common sense as to averaging properties. This is specifically taught and suggested in the prior art, as set forth above, and also in Bazaki at col. 1, lines 40-60.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior omission of the citation for Lund et al. '714, as opposed to '649, is regretted. Applicants are invited to call the examiner to clarify any similar problem in the future. Applicants' newly cited prior art has been considered. However, the cited international search report, although considered, has been lined through, as not being properly cited or proper scientific literature; that is, it is not prior art. US Pat. No. 6,391,130 is cited (but not supplied) as this is the US equivalent to WO 00/52011 A2 cited by applicants, to complete the record.

5. Any inquiry concerning either this or an earlier communication from the Examiner should be directed to Examiner Edward A. Miller at (703) 306-4163. Examiner Miller may normally be reached Monday-Thursday, from 10 AM to 7 PM.

If attempts to reach Examiner Miller by telephone are unsuccessful, his supervisor Mr. Carone can be reached at (703) 306-4198.

If there is no answer, or for any inquiry of a general nature or relating to the application status, please call the Group receptionist at (703) 308-1113.

Miller/em
February 23, 2004



EDWARD A. MILLER
PRIMARY EXAMINER